4.4 AESTHETICS

1

25

26 27

28 29

30

31 32

33 34

35

36

37

- 2 This section describes the current quality of onshore and offshore viewsheds in the 3 proposed Project area and the potential Project impacts on the aesthetic character of 4 the region. During scoping and the public review period for the October 2004 Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR), commenters 5 6 requested the following additional information on the aesthetics analysis, including the 7 size and scale of the floating storage and regasification unit (FSRU); the number of 8 oceangoing vessels that use the coastwise traffic lanes in the Santa Barbara Channel: 9 lights on the FSRU and whether the FSRU and Project-related lighting would be visible 10 from land areas above sea level, particularly the Channel Islands and the coastline between Oxnard and Malibu; and reasons for selection of sites for visual simulations, 11 12 requests for additional simulations from higher elevations, and qualifications of 13 individuals preparing the visual simulations.
- During the public review period for the March 2006 Revised Draft EIR, comments concerning aesthetics impacts involved night lighting, the size of the FSRU, views from State parks and national recreation areas, views to scenic view corridors, and requests for visual simulations from higher elevations and a location map of simulation viewpoints.
- The analysis discusses the aesthetic impacts of construction and operation. After construction is complete, the FSRU would be the most visible component of the Project, and therefore this analysis focuses on that component. In addition, mitigation measures for potentially significant impacts are identified, and the visual effects of alternatives relative to the Project are evaluated.

24 4.4.1 Environmental Setting

This section provides a general overview of the Project components that are most relevant to the analysis of aesthetic impacts. Visual simulations that represent views of the Project area are presented, specifically, the FSRU from various locations in the region. This section also generally describes the Project area's visual character. Specific descriptions of particular views of the Project from key observation points (KOPs) within the existing aesthetic context are discussed in Section 4.4.4, "Impact Analysis and Mitigation." The location of the FSRU is shown on visual simulations but not on photographs depicting the existing viewsheds. In response to public comments on the March 2006 Revised Draft EIR, Figure 4.4-20, which shows the locations of the KOPs, has been added to the end of Section 4.4, and four new simulations have been added to Appendix F. Also in Appendix F is a detailed discussion of the methods and tools used to prepare the simulations presented in this document.

4.4.1.1 Visual Aspects of the Project

The Project consists of four main components: (1) the offshore FSRU, which would be anchored and moored in Federal waters 12.01 nautical miles (NM) (13.83 miles or 22.25 kilometers [km]) off the coast of Ventura and Los Angeles Counties, in waters

2,900 feet (884 meters [m]) deep, where the liquefied natural gas (LNG) would be offloaded and regasified; (2) two 24-inch (0.6 m) diameter parallel subsea pipelines to transport the re-gasified natural gas to shore; (3) a shore crossing where the offshore pipelines would pass beneath the beach and connect to a coastal metering station; and (4) two onshore buried pipelines that would tie into existing natural gas pipelines, one within the Oxnard city limits and Ventura County and the other in the City of Santa Clarita within Los Angeles County. After construction, only the FSRU would remain visible offshore; the new metering station would be located at the Reliant Energy Ormond Beach Generating Station and other structures would be small.

The FSRU, similar in appearance to an oceangoing LNG carrier, would be double-hulled with three spherical Moss (storage) tanks (see Figure 4.4-1 for a representative illustration of the FSRU). It would measure approximately 971 feet (296 m) long, not including the mooring turret, and 213 feet (65 m) wide (see Figure 2.2-1 in Chapter 2, "Description of the Proposed Action"). The tops of the LNG storage tanks would be approximately 102 feet (31 m) above the main deck, placing them approximately 161 feet (49 m) above the waterline when loaded and 164 feet (50 m) when ballasted. The tallest part of the FSRU would be the cold stack, which would be approximately 266 feet (81 m) above the waterline and approximately 105 feet (32 m) above the top of the LNG storage tanks when loaded and approximately 269 feet (82 m) above the waterline and 108 feet (33 m) above the top of the LNG storage tanks when ballasted. The cold stack is a small-diameter exhaust pipe located at the bow of the ship to vent natural gas vapors in the event of an emergency. Since the cold stack pipe is small in diameter, it would not be seen distinctly from any significant distance away from the FSRU.



Figure 4.4-1 Artist's Rendering of the FSRU

The proposed FSRU is comparable in length to typical LNG carriers, but it is about 50 percent wider and twice as tall as the average LNG carrier. The Applicant has proposed that the FSRU hull be painted Admiralty Pacific Gray or a similar shade. The USCG would determine the final paint color and scheme for the FSRU hull based on navigational safety, among other considerations. Lighting onboard the FSRU would comply with regulatory requirements and would be designed to minimize nighttime impacts. The lighting would be used only to ensure safety and security and when operations require lighting. Movement sensors would be employed where practicable, and floodlight use would be minimized. Where used, floodlights would employ high-efficiency, low-glare fittings such as sodium and metal halide types.

LNG carriers would also be illuminated for safety and would include five footcandles at transfer connection points and one footcandle in transfer operations work areas. Lighting would be located or shielded so as not to mislead or otherwise interfere with navigation on the adjacent waterways, and would minimize impacts on migratory and coastal birds. Typically, the LNG carriers must be illuminated continuously from one hour before sunset to one hour after sunrise and during any periods of reduced visibility while the vessel is moored to the FSRU.

The FSRU would be permanently moored and would use a turret system, i.e., a revolving tower-like structure, to allow the FSRU to weathervane (rotate) around a fixed point. The FSRU would swing around this fixed anchor point influenced by prevailing water and wind currents in a fashion similar to ships at anchor. Since prevailing winds in the Project vicinity come from a west to west-northwest direction, the most common orientation of the FSRU would be roughly parallel to the coast with the bow pointing into the wind. Visiting LNG carriers would tie up to the FSRU along its starboard side (which faces the coast), but because the LNG carriers are substantially shorter in overall height, the LNG carrier would not typically be distinguishable as a separate vessel to an onshore observer beyond 12.01 NM (13.83 miles or 22.25 km). Winter storm winds tend to be from a more northwesterly direction, and under these circumstances the orientation of the FSRU would not be substantially different, i.e., still roughly parallel to the coast. For observers who are on commercial or recreational vessels offshore, the view of the FSRU and an offloading LNG carrier would vary, depending on distance and directional heading to the FSRU.

4.4.1.2 Offshore Areas Viewed from the Coastline

Views of the Project area from shoreline areas consist mainly of open ocean. The profiles of Anacapa Island (maximum elevation 930 feet [283 m]) and Santa Cruz Island (maximum elevation approximately 2,300 feet [701 m]), located offshore 10.8 and 16.5 NM (12.4 and 19 miles or 20 and 30.6 km) from the nearest mainland points, are visible; however, under typical marine layer conditions, shapes, lines, and textures can be difficult to distinguish. Four offshore platforms can be seen from the coastline under good visibility conditions. From the nearest point on the coast in Ventura County, at Leo Carrillo State Beach near the Ventura/Los Angeles County line, Platform Grace is 9 NM (10.4 miles or 16.7 km) offshore; Platform Gilda is 7.6 NM (8.8 miles or 14.1 km);

- 1 Platform Gail is about 8.7 NM (10 miles or 16.1 km); and Platform Gina is the closest at 3.2 NM (3.7 miles or 5.9 km). These platforms are lighted and visible at night.
- 3 Good visibility occurs in the nearshore and offshore Project areas primarily between
- 4 November and May, when distances greater than 9 NM (10.4 miles or 16.7 km) may be
- 5 visible about half the time. Heavy marine layer conditions occur from mid-May to mid-
- 6 July in Ventura County, where visibility offshore is often reduced to less than 0.9 NM
- 7 (1.04 mile or 1.67 km) (see Table 4.1-6, "Visibility Distances by Month at Point Mugu," in
- 8 Section 4.1, "Introduction to the Environmental Analysis"). Nearshore and offshore
- 9 areas in Ventura County are characterized by a light marine layer condition consisting of
- 10 clear sky with surface haze, with visibility limited to 9 to 13 NM (10.4 to 15 miles or 16.7
- 11 to 24.1 km) offshore. The sky and water appear as a uniform gray color, and any
- 12 contrast in color or texture between the sky and water is usually not discernible. As
- 13 discussed below, residential communities with views of the proposed Cabrillo Port site
- 14 are approximately 17 to 22 NM (19.6 to 25.3 miles or 31.5 to 40.8 km) from the
- 15 proposed Cabrillo Port site.
- 16 Visibility statistical data for the vicinity of Point Mugu show that a visibility threshold of
- 17 ≥ 9 NM (10.4 miles or 16.7 km), i.e., good visibility, occurs approximately 37 percent of
- 18 the year (November through April) (see Table 4.1-7, "Visibility Frequency (Percent) at
- 19 Point Mugu (PM) and San Nicholas Island (SNI)" in Section 4.1, "Introduction to the
- 20 Environmental Analysis"). The FSRU is 12.01 NM (13.83 miles or 22.25 km) from the
- 21 nearest mainland shore at Leo Carrillo State Beach near the Ventura/Los Angeles
- 22 County line.
- 23 The FSRU would be anchored approximately 16 NM (18.4 miles or 29.6 km) south-
- 24 southeast of the Reliant Energy Ormond Beach Generating Station, which is located in
- 25 the City of Oxnard (see Figure 2.1-2 in Chapter 2, "Description of the Proposed Action").
- 26 It would be located in waters 2.02 NM (2.3 miles or 3.7 km) farther from shore from the
- southern edge of the nearest shipping lane (the southbound coastwise traffic lane).
- Commercial fishing, naval, and recreational vessels are also a common feature of the
- marine viewshed. More than 5,000 commercial vessels transit the traffic separation scheme in the Santa Barbara Channel annually, roughly 14 ships every 24 hours; there
- is almost always a ship in one's field of view for a person on the mainland (see Section
- 32 4.3, "Marine Traffic"). If no marine traffic is visible, it is more likely due to smog,
- 33 atmospheric haze, fog, or darkness of the night sky rather than an absence of shipping
- 34 traffic.
- 35 Hollywood Beach, Mandalay Beach, Ormond Beach, Silver Strand Beach, and Port
- 36 Hueneme Beach are popular destinations for residents and tourists. The proposed
- 37 FSRU would be located approximately 17.6 to 21.5 NM (20.3 to 24.8 miles or 32.6 to
- 38 39.8 km) away from these beaches.

Table 4.4-1 summarizes the distances from residential areas that may be within view of the FSRU (also see Figure 2.1-2 in Chapter 2, "Description of the Proposed Action").
Farther south along State Route (SR) 1 (the Pacific Coast Highway) near Point Mugu, the Oxnard Plain meets the coastal Santa Monica Mountains, which rise sharply, adjacent to the highway. In this area are homes and some businesses with potential views of the proposed Cabrillo Port site.

Table 4.4-1 Distances from Residential Areas to FSRU

Location	Distance to Cabrillo Port		
Mandalay Shores, Oxnard (center of community)	22.4 NM (25.8 miles or 41.5 km)		
Housing near Hollywood by the Sea and Silver Strand Beach	20.4 NM (23.5 miles or 37.8 km)		
Oxnard Shores Mobile Home Park	22.7 NM (26.1 miles or 42.1 km)		
Latigo Point	17.1 NM (19.7 miles or 31.7 km)		
Corral Canyon	18.8 NM (21.7 miles or 34.8 km)		
Single family residential area adjacent to Malibu Civic Center	19.7 NM (22.7 miles or 36.5 km)		

Hiking trails in the Santa Monica Mountains National Recreation Area (NRA) and the 55-mile (88.5 km) scenic corridor associated with Mulholland Drive provide local residents and hikers with views of the Pacific Ocean, and therefore, potential views of the FSRU. The NRA attracts approximately 500,000 visitors each year (National Park Service 2006).

Photographs from KOPs in the Project area are presented on the following pages. Figure 4.4-20 at the end of Section 4.4 shows the locations of the KOPs. These photographs show the existing viewshed from locations along the coastline, from the Channel Islands, and onshore along the pipeline route. The photographs were taken on February 19 and 20, 2004, and June 3, 4, and 6, 2004, to establish baseline conditions. Most of the key observation points were selected based on citizen comments received at the public scoping meetings and in letters, which expressed concerns about how the proposed Project would change their views from several locations along the coast and inland at higher elevations between Oxnard and Malibu.

7

8

9

11

12

13

14 15

16 17

18

19

Figure 4.4-2 (KOP 1) shows the view offshore looking southwest from Oceanview Drive in Port Hueneme. The offshore platform is approximately 4.1 NM (4.7 miles or 7.6 km) from shore. The Channel Islands are visible on the horizon. An offshore platform can be seen in the distance. Commercial vessels traveling to and from Port Hueneme are visible from onshore beach and State recreation areas.



Figure 4.4-2 Offshore View from Oceanview Drive, Port Hueneme (KOP 1)

1

3

4

- Figure 4.4-3 (KOP 2) presents the view from a local park at a higher elevation, the Malibu Bluffs near Pepperdine University, approximately 19.4 NM (22.3 or 35.9 km)
- 3 from the proposed FSRU location. The relative location of the FSRU from this viewpoint
- 4 would be on the horizon at the center of the photo. The bluffs are approximately 200
- 5 feet (61 m) above seal level.



Figure 4.4-3 Offshore View from the Malibu Bluffs Area (KOP 2)

- Ventura County's coastline has been preserved as open space or agricultural land,
- 7 except for some residential communities. Mandalay Shores, a beachfront community in
- 8 Oxnard, is located approximately 22.4 NM (25.8 miles or 41.5 km) from the proposed
- 9 FSRU site.

1 F 2 N 3 k 4 s 5 ii 6 c

7

Figure 4.4-4 (KOP 3) presents the view looking south along the beach adjacent to the Mandalay Shores residential community, approximately 22.4 NM (25.8 miles or 41.5 km) from the proposed FSRU site. Compass readings on a handheld global positioning system (GPS) unit indicated that the FSRU would be situated approximately at the intersection of the last visible home and the shoreline at the horizon. An almost constant hazy mist due to wave action is present at the shoreline, particularly at the distance shown in the photograph.



Figure 4.4-4 Southeasterly View along the Beach at Mandalay Shores (KOP 3)

Figure 4.4-5 (KOP 4) presents the view from Encinal Canyon Road, Malibu, approximately 400 feet (122 m) above sea level and approximately 13.1 NM (15.1 miles or 24.3 km) from the proposed FSRU site. SR 1 is in the foreground. Compass bearings place the proposed FSRU at the center of the photograph. Part of the FSRU could be visible but would not be clearly defined in a typical hazy atmosphere.



Figure 4.4-5 View from Encinal Canyon Road, Malibu (KOP 4)

4.4.1.3 Project Area Viewed from the Channel Islands

- The views from the Channel Islands consist mainly of open ocean, the California coastline in the distance, and commercial and recreational vessels in the foreground.

 Offshore Platforms Grace, Gilda, Gail, and Gina are also visible from the islands under
- good visibility conditions. The FSRU anchorage would be approximately 18.71 NM
- 11 (21.5 miles or 34.7 km) from Anacapa Island, the nearest island of the Channel Islands,
- 12 and 26 NM (29.9 miles or 48.2 km) from Santa Cruz Island.

Figure 4.4-6 (KOP 5) presents the view from a small boat near the Landing Cove at Anacapa Island looking toward Arch Rock. The FSRU would be located at the center of the photograph, approximately 18.71 NM (21.5 miles or 34.7 km) in the distance, but below the horizon (and therefore not visible). Depending on a viewer's elevation, all or portions of the FSRU would be visible (but only as a very small object on the horizon) from other locations within the Channel Islands National Park, mainly from higher elevations on Anacapa and Santa Cruz Islands.



Figure 4-4.6 View from Anacapa Island (KOP 5)

1

2

4 5

6

Figure 4.4-7 (KOP 6) shows the ocean view from SR 1, taken 1.125 miles (1.8 km) north of Leo Carrillo State Beach. At some locations along this coastal highway there is both residential and commercial development. The tops of the Moss tanks of the FSRU would be visible from SR 1 at this location.



Figure 4.4-7 View Looking toward the Channel Islands from SR 1 near the Los Angeles/Ventura County Line (KOP 6)

4.4.1.4 Shore Crossing and Onshore Project Area Viewed from Onshore

The only change in aboveground structures would be a new metering station within the existing Reliant Energy Ormond Beach Generating Station (see Section 2.3.1, "Offshore Pipelines and Associated Facilities"). The metering station would be on the grounds of the generating station and not on the beach. Additionally, security lighting would use full cut-off features, angled at 85 degrees, minimizing any glare. Lighting of these facilities would not be a new feature and therefore would not be a new source of light or glare.

13 Shore Crossing and Proposed Center Road Pipeline Route – City of Oxnard

- 14 The pipelines would be installed under Ormond Beach, which has 11,400 feet (3,475 m)
- of beach frontage and approximately 210 acres (85 hectares) of dry sandy area (City of
- 16 Oxnard 2004).

1

2

3

4

- Figure 4.4-8 (KOP 7) shows the view of the Reliant Energy Ormond Beach Generating Station (from a point northwest looking southeast) in the middle ground. The view shows the ocean, shoreline, beach, and low coastal dunes in the foreground. The
- 4 generating station bounds the beach to the east and the Pacific Ocean to the west.
- 5 Recreational boats are also common features off Ormond Beach.



Figure 4.4-8 View to the Ormond Beach Generating Station Looking Southeast along the Coastal Dunes (KOP 7)

The area around the station is undeveloped, wetlands, and farmland (see Figure 4.4-9 [KOP 8]). The City of Oxnard General Plan recognizes the Ormond Beach sand dunes and wetlands as a major scenic resource for the city.



Figure 4.4-9 View of Farmland Adjacent to the Reliant Energy Ormond Beach Generating Station, Oxnard (KOP 8)

The Center Road Pipeline travels north along an existing utility right-of-way (ROW) and then east on Hueneme Boulevard to Nauman Road, where it turns north and continues in a northerly direction primarily along Nauman, Hailes, and Del Norte Roads until it reaches Ventura Boulevard, from which it travels generally northeast on utility ROWs and parts of Central Avenue, Santa Clara Avenue, and La Vista (see Figure 3.4-2, in Chapter 3, "Alternatives"). The existing Center Road Valve Station, at the northern terminus of the proposed Center Road Pipeline, is located within Ventura County and is surrounded by agricultural uses, including orange groves. The valve station would be expanded with equipment similar to the existing equipment to accommodate the gas from this Project. The expansion would not change the character of the facility. The facilities would not be lighted at night.

- 1 Figure 4.4-10 (KOP 9) shows a southeast view at the intersection of Sturgis Road and
- 2 Del Norte Boulevard. The Oxnard-Camarillo Greenbelt, identified in the City of Oxnard
- 3 General Plan, is visible in the middle ground, while the mountains in the Los Padres
- 4 National Forest are visible in the background. The City of Oxnard General Plan
- 5 designates Del Norte Boulevard as a City Image Corridor/Scenic Highway.



Figure 4.4-10 View of Del Norte Boulevard, Oxnard (KOP 9)

- 6 The proposed Center Road Pipeline route would pass mainly through commercial areas
- 7 and agricultural fields. Homes that are adjacent to the proposed pipeline construction
- 8 include a few areas of low-density housing on Nauman Road between Hueneme Road
- 9 and SR 1, another small cluster of residences along Pidduck Road, adjacent to SR 1
- 10 near Nauman Road, homes along Dufau Road, adjacent to SR 1 on the north side, near
- 11 Nauman Road, and a few homes on both sides of Wolff Road, north of Pleasant Valley
- 12 Road and south of SR 34 (East 5th Street).

Line 225 Pipeline Loop – City of Santa Clarita

- 14 The proposed Line 225 Pipeline Loop is located within the boundaries of the City of
- 15 Santa Clarita and would generally parallel the existing Line 225 Pipeline either in or
- 16 near the existing utility ROWs. The visual setting of Santa Clarita is generally
- 17 characterized by the San Gabriel Mountains to the east and the Santa Susana
- 18 Mountains to the southwest. The most prominent visual feature within the Project area
- 19 is the Magic Mountain amusement park.

- With the varied topography in the area, numerous canyons and waterways also provide definition to the city. The proposed pipeline would be buried primarily within existing roads, and in natural areas the ROW would be recontoured and revegetated. The Santa Clara River, which is identified in the City of Santa Clarita General Plan as a significant scenic resource, would be crossed by the proposed Line 225 Pipeline Loop either within the existing road bridge or deep under the riverbed and adjacent riparian area.
- 8 Circle J Park, located at 22651 Via Princessa, is located adjacent to the Line 225 9 Pipeline Loop route; parks are considered to be important scenic resources. 10 Figure 4.4-11 (KOP 10) shows the pipeline ROW crossing at Via Princessa Road at the 11 Circle J Ranch Park.



Figure 4.4-11 View of Via Princessa Road and Circle J Ranch Park, Santa Clarita (KOP 10)

- 1 SR 126, San Fernando Road, is a major thoroughfare in Santa Clarita. Figure 4.4-12
- 2 (KOP 11) shows SR 126 near Magic Mountain Parkway, looking south. The Santa
- 3 Clara River is located to the right, behind the row of businesses offset from the street,
- 4 by approximately 200 feet (61 m).



Figure 4.4-12 View of SR 126, Santa Clarita (KOP 11)

5 4.4.2 Regulatory Setting

6 A summary of major regulatory requirements and policies is presented in Table 4.4-2.

Table 4.4-2 Major Laws, Regulatory Requirements, and Plans for Aesthetics

Law/Regulation/Plan/ Agency	Key Elements and Thresholds; Applicable Permits		
Federal			
n/a	There are no Federal regulations for protection of visual resources that are applicable to this Project.		
State			
California Scenic Highway Program	The California's Scenic Highway Program (Streets and Highways Code, § 260 et seq.) preserves and protects scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. There are no state designated scenic highway corridors in the Project area.		

Table 4.4-2 Major Laws, Regulatory Requirements, and Plans for Aesthetics

Law/Regulation/Plan/ Agency	Key Elements and Thresholds; Applicable Permits		
California Coastal Commission, California Coastal Act, §30251	The California Coastal Act states, "The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting."		
Local Regulations			
Ventura County General Plan	The Ventura County General Plan, "Goals, Policies and Programs," identifies the visual landscape in Ventura County as one of its most significant resources and states that protection of scenic resources is most critical where the resources will be frequently and readily viewed, such as a highway, or where the resource is particularly unique. The plan also notes that the preservation and protection of significant open views and visual resources of the county and protection of visual resources within the viewshed of designated highways and other scenic areas as identified by area plans are important. The General Plan also designates lake-related Scenic Resource Areas and Scenic Highway Areas.		
Ventura County Coastal Area Plan	There are no policies in the Ventura County Coastal Area Plan applicable to the protection of visual resources.		
City of Oxnard	The Community Design element in the City of Oxnard's 2020 General Plan identifies scenic resources, view corridors, and scenic routes within the City of Oxnard that comprise Oxnard's visual character. The General Plan recognizes that the beaches and coastline are Oxnard's primary natural scenic resources because they provide unique views to the Channel Islands.		
	 Views of the surrounding topography also are considered an important scenic resource. View corridors on the City's north-south streets provide panoramic views of the area's foothills and mountains – the 2020 General Plan emphasizes that these corridors should be maintained and enhanced. 		
	The City designated certain roads as City Image Corridors/Scenic Highways within the City.		
	 Rows of eucalyptus and cypress trees planted by farmers to protect crops are recognized as valuable visual elements. 		
City of Oxnard Local Coastal Plan (City of Oxnard July 2000)	All new development in the coastal zone must be designed to minimize impacts on the visual resources of the area. Particular care should be taken in areas of special quality such as those identified in the Local Coastal Plan.		
City of Santa Clarita	The Community Design Element of the City of Santa Clarita General Plan identifies the ridgelines of the Angeles National Forest and Los Padres National Forest as important visual backdrops giving definition to the Santa Clarita Valley. Additionally, the South Fork Santa Clara River is identified as a significant visual resource.		

4.4.3 Significance Criteria

1

4 5

6

7

8

9

10

- 2 For the purposes of this document, aesthetic/visual impacts are considered significant if the Project would: 3
 - Substantially degrade the character of the area, degrade an existing viewshed or scenic vista, or alter the character of the viewshed by the introduction of anomalous structures or elements that are essentially permanent in nature;
 - Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings along a State Scenic Highway; or
 - Create a new source of substantial light or glare that would, in the long term, adversely affect nighttime views from shoreline areas and adjacent water areas.

11 4.4.4 **Impact Analysis and Mitigation**

- 12 Applicant-proposed measures (AM) and agency-recommended mitigation measures (MM) are defined in Section 4.1.5, "Applicant Measures and Mitigation Measures." 13
- 14 For this analysis, a view is defined as having three components: (1) foreground with
- 15 attention to detail, at less than 0.4 NM (0.5 mile or 0.7 km); (2) middle ground, with
- 16 much less detail but attention to vegetation changes from 0.4 to 2.6 to 4.3 NM (0.5 to 3
- 17 to 5 miles or 0.7 to 4.8 to 8 km); and (3) background, with no detail and attention to
- 18 large land forms at distances greater than 2.6 to 4.3 NM (3 to 5 miles or 4.8 to 8 km)
- 19 (Ventura County Planning Division 2000). Conservation of views in the foreground is
- 20 typically most important because features in this view are most noticeable.
- 21 The proposed Project's impacts on visual resources were analyzed from key 22 observation points using offshore visual simulation modeling conducted by the Applicant
- 23 and verified for analysis. Visual simulation was conducted only for those points where
- 24 the FSRU would be visible, not from any locations that would place the FSRU below the 25 The methodology for visual simulation modeling is discussed in visual horizon.
- 26 Appendix F.
- 27 In response to public comments on the March 2006 Revised Draft EIR, photographs 28 were taken from four higher elevations: one in Mugu State Park and three in the Santa 29 Monica Mountains NRA. Three new simulations were prepared; however, a simulation 30 was not prepared for one location in the Santa Monica Mountains NRA where there was no direct line of sight to Cabrillo Port. Appendix F contains these new photographs and 31 summarizes the modeling results and the methodology used to create the simulations. 32 33 Mugu Peak, in Mugu State Park, is over 14 NM (16.1 miles or 25.9 km) from the FSRU, and an observer would have a clear line of sight to the FSRU. Under typical marine 34 meteorological conditions, the FSRU would be a ship-like small object on the horizon.
- 35 At the viewpoints in the Santa Monica Mountains NRA, more than 18 NM (20.7 miles or 36
- 37 33.3 km) from Cabrillo Port, the FSRU would also be a small object that would blend
- 38 with the horizon similar to a ship viewed from this location.

- 1 The FSRU would be the largest aboveground structure associated with this Project and 2 therefore would be the Project's most visible component. The geophysical factors that 3 would affect the visibility of the FSRU from any given point include the marine layer, the 4 curvature of the earth, the distance between the FSRU and the observer, and the height 5 of the observer's eye above the surface of the water. To a lesser degree, refraction of light near the visual horizon can affect the visibility of features at great distances. 6 7 Refraction is influenced by meteorological conditions such as humidity but is not easily 8 quantifiable.
 - Few qualitative standards exist to help guide visual analyses to determine impacts on visual resources. Visual analysis is subjective; what one person may reasonably think is a negative impact on a view another may think is not significant. Also, different population groups have higher sensitivity to change in the visual environment than others; for example, local residents are sensitive receptors because of their familiarity with the viewshed, the length of time during which they experience the change, and their ability to detect change. Tourists and recreational users are also considered sensitive receptors because the viewshed is one of the reasons for their presence. People who are traveling to and from work are considered to have low visual sensitivity.
- Viewers who are offshore also vary in their visual sensitivity. Commercial mariners are characterized as having low to moderate visual sensitivity to changes in the visual environment because the views of the area would not be among the primary reasons for their presence in offshore locations, whereas whale watchers are characterized as having high visual sensitivity because enjoyment of the offshore views is one of the primary reasons for their recreational activity.
- 24 Impact AES-1: Alter Ocean Views from Onshore and Channel Islands Viewpoints
- The FSRU in an unobstructed viewshed could alter views from beach areas, residences near sea level, residences at higher elevations, and from hiking trails at higher elevations (CEQA Class III; NEPA minor adverse, long-term).
 - Unlike oil platforms along the coast, the FSRU would appear similar in shape to commercial vessels that are frequently seen in the Project area; therefore, it is not regarded as an anomalous structure. The FSRU would be larger than many of the vessels transiting the area but would be similar in size to oil carriers or naval aircraft carriers and thus, not unusual, given the number of vessels transiting the area daily.
- Because the distance to the visual horizon increases with elevation, hikers in the Santa Monica Mountains NRA or on the Channel Islands are more likely to be able to see parts of the FSRU than residents at sea level. Also, as elevation increases, the viewshed broadens. Residents living at higher elevations, such as in Malibu near Latigo Point and Corral Canyon, or near the Malibu Civic Center, are, therefore, able to see greater distances offshore than residents at sea level in Oxnard.

9

10 11

12

13

14

15

16 17

28

29 30

31

¹ Refraction is the bending of the light rays as they pass through the atmosphere.

As discussed above and shown in Figure 2.1-2 in Chapter 2, "Description of the Proposed Action," the FSRU would be remote from the coastline and the Channel Islands. From viewpoints at sea level on the coast near Mandalay Shores, Hollywood Beach, and Silver Strand Beach, located approximately 17.6 to 21.5 NM (20.3 to 24.8 miles or 32.6 to 39.8 km) from the FSRU, and Mugu Rock, located approximately 13.7 NM (15.8 miles or 25.4 km) from the FSRU, Cabrillo Port would be below the horizon and would not be visible even on a clear day. A small portion of the FSRU would be visible on the horizon from Ormond Beach. At all of these locations, the FSRU would not be a distinguishable feature when viewing the ocean from the beach or from sea level viewpoints at many locations along the coast.

Similarly, visitors to Anacapa Island (the closest of the Channel Islands, located approximately 18.8 NM [21.7 miles or 34.8 km] from the FSRU) would not be able to see the FSRU in their viewsheds when they are at sea level. At the top of Anacapa, however, which is about 930 feet (283 m) above sea level, the entire FSRU would be visible; but it would most likely appear to be a very small object at the horizon.

The FSRU would be visible from viewpoints near Leo Carrillo State Beach. Figure 4.4-13 shows a photographic simulation of the area where the FSRU would be located 12.01 NM (13.83 miles or 22.25 km) offshore under clear sky conditions. Under

these conditions, the FSRU would be barely visible as an object in the background at

the horizon between the two ships simulated within the shipping lanes.

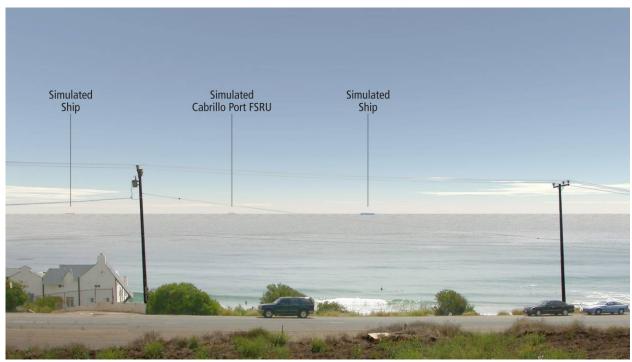


Figure 4.4-13 Simulated View of FSRU from near Leo Carrillo State Beach under Clear Weather Conditions

1

2

3

4

5

6

7 8

9

10

16

17

18

As shown in Figure 4.4-14, under typical marine conditions (visibility at 9 to 13 NM [10.4 to 15 miles or 16.7 to 24.1 km]), the FSRU would be obscured because of haze on the horizon, although the simulated ship would be visible. Under heavy marine layer conditions, visibility from this viewpoint would be reduced to 0.9 NM (1.04 mile or 1.67 km), and the FSRU would not be visible.

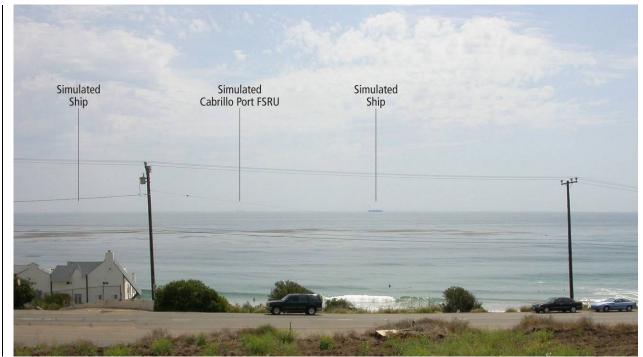


Figure 4.4-14 Simulated View of FSRU from near Leo Carrillo State Beach under Typical Marine Weather Conditions

Figure 4.4-15 (KOP 12) provides an alternative view at a higher elevation (206 feet) from Malibu Bluffs, Malibu. The proposed location of the FSRU would be on the horizon at the center of the photograph. On a clear day, from a distance of more than 19.4 NM (22.3 miles or 35.9 km), most of the 164-foot (50 m) main structure would be visible on the horizon. For some onlookers, this visible part of the FSRU would be discernible in the marine landscape but would not likely be distinguishable from passing tankers and other large vessels, which are an expected element of ocean views in Southern California.



Figure 4.4-15 View Toward Proposed FSRU Location from Malibu Bluffs, Malibu (KOP 12)

Figure 4.4-16 (KOP 13) shows a view in the direction of the proposed FSRU location under clear sky conditions. The simulated ship that is barely visible at the horizon, right of center, is simulated within the shipping lanes.



Figure 4.4-16 View of Simulated FSRU from Point Dume under Clear Sky Conditions (KOP 13)

The FSRU would be visible from viewpoints at higher elevations such as Encinal Canyon or at the Malibu Civic Center. Because of the shape and color of the FSRU, it would appear as an indistinguishable object on the horizon from Mandalay Shores, Hollywood Beach, Silver Strand Beach Mugu Rock, or Anacapa Island at sea level (see Figure 4.4-17). It would be somewhat more noticeable from Ormond Beach, although it still would not likely be distinguishable from other large ships in the region. However, the FSRU may be visible from Summit Peak on Anacapa Island, which is 930 feet (283 m) above sea level, although this is a Natural Research Area not open to recreational hikers.

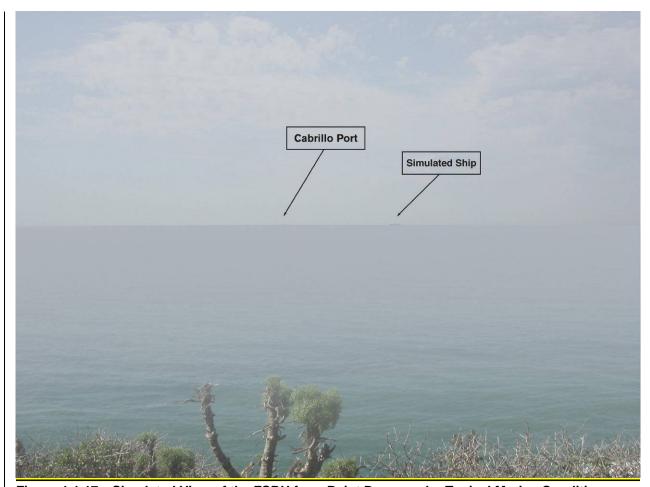


Figure 4.4-17 Simulated View of the FSRU from Point Dume under Typical Marine Conditions

Santa Barbara Island, the smallest of the Channel Islands, is located approximately 33 NM (38 miles or 61.1 km) from the coastline and 21.7 NM (25 miles or 40.2 km) south of the proposed FSRU site. Its highest point, Signal Peak, is 635 feet (194 m) in elevation. Santa Barbara Island appears as a speck on the horizon. The FSRU and Santa Barbara Island, together on a clear day in a single view, would appear as an indistinguishable object in the background on the horizon. With the addition of the marine layer, the FSRU would appear as an indistinguishable element on the horizon.

- 1 Higher parts of the FSRU could be visible from locations within the Channel Islands 2 National Park, mainly from higher elevations on Anacapa and Santa Barbara Islands 3 (Signal Peak is located on a hiking trail), approximately 17.4 to 26.1 NM (20 to 30 miles 4 or 32.2 to 48.4 km), respectively, from the FSRU. The FSRU would appear as a 5 thickening of the horizon in the view from the Malibu bluffs (see Figure 4.4-15 above). 6 The Applicant proposes to paint the FSRU hull Admiralty Pacific Gray or a similar shade 7 to blend in with the natural surroundings. The USCG would determine the final paint 8 color and scheme for the FSRU hull based on navigational safety, among other 9 considerations. From the viewpoints onshore, distinct features on the FSRU such as 10 the cold stack would not be discernible.
- 11 Although the views from higher coastline and island points would be altered by the presence of the FSRU, different populations could dispute the significance of the 12 13 change. Due to the distance of the FSRU from key observation points and the maritime 14 character of the FSRU in the distance, which would be similar in appearance to large vessels that routinely transit the Project area, the existence of the FSRU would not 15 substantially degrade the character of the area, degrade an existing viewshed or scenic 16 17 vista, or alter the character of the viewshed by the introduction of anomalous structures 18 or elements.
- For these reasons, this impact is adverse but less than significant and no additional mitigation measures are identified.
- 21 Impact AES-2: Alter Nighttime Ocean Views
- Night lighting on the FSRU could be visible to residents, thereby altering night vistas (CEQA Class III; NEPA minor adverse, long-term)
- Project activities may initially create a moderate to high degree of visual sensitivity for occupants of nearby residences and within view corridors as well as for recreational users. Residents living in the foothills or in beachfront communities could observe lighting from the cold stack on the FSRU.
- 28 Lighting of the FSRU during operation is mandated by Commandant Instructions 29 16672.2C, Navigation Rules, and Collision Avoidance Regulations, and is required for 30 the safety of the proposed Project as well as the safety of recreational boaters and commercial vessel traffic and may be visible up to 10 NM (11.5 miles or 18.5 km) away. 31 32 Lights would be in use during evening and night hours on the FSRU and supply vessels. As allowable under the Deepwater Port Act, the brightest onboard light would be a 33 34 rotating beacon at the highest, unobstructed point on the vessel; this light would flash at 35 least once every 20 seconds and would be positioned to be visible all around the horizon. This light would be required to have an effective intensity of at least 15,000 36 37 candela, i.e., luminous intensity. This is a fairly low light output; a typical high beam on an automobile has an intensity of about 100,000 candela, or 70 watts. All other lighting 38 39 on the vessel would not interfere with the range and arc of visibility of navigational lighting and therefore would be of significantly lower luminous intensity. Even a typical 40

- 1 light-emitting diode (LED) marine beacon, achieving between 1,500 and 2,800 candela,
- 2 has a range of only 6 to 10 NM (6.9 to 11 miles or 11.1 to 18.5 km).
- 3 However, because of its remote location, the lighting could be seen from shore or from
- 4 the Channel Islands only on clear nights if at all. The required beacon light would be
- 5 less visible than the lighting on offshore platforms in the Santa Barbara Channel. In
- addition, commercial vessels transiting the Project area at night are also lit. For these
- 7 reasons, although the FSRU would create a new source of light, it is not a substantial
- 8 source that would adversely affect nighttime views from the shoreline areas and
- 9 adjacent water areas.
- 10 Table 4.4-3 summarizes offshore lighting requirements during Project operation.

Table 4.4-3 Summary of Offshore Lighting Requirements During Operation

Facility/ Location	Duration (Days)	Source	Height above Sea Level	Shielded	# of lights	Approximate Visibility	Comments
FSRU	365	Rotating beacon	~ 266 feet (81 m)	No	1	6 to 10 NM (6.9 to 11 miles or 11.1 to 18.5 km)	White light
FSRU	365	Obstruction lights (aircraft)	190 feet (57.9 m)	No	6	>10 NM (11.5 miles or 18.5 km)	Red lights
FSRU	365	Obstruction lights (marine)	>70 feet (21.3 m)	No	4	>10 NM (11.5 miles or 18.5 km)	White lights
FSRU	365	Process illumination	65-100 feet (19.8-30.5 m)	180°	30	>5 NM (5.8 miles or 9.3 km)	Fluorescent white lights
FSRU	365	Accommodations illumination	65-120 feet (19.8-36.6 m)	180°	30	>5 NM (5.8 miles or 9.3 km)	Incandescent lights
FSRU	156	LNG transfer operations	85-100 feet (25.9-30.5 m)	180°	10	>7 NM (8.1 miles or 13 km)	Halogen flood lights
FSRU	156	Overside illumination	65-75 feet (19.8-22.9 m)	180°	5	>7 NM (8.1 miles or 13 km)	Halogen flood lights
Supply Vessel (2)	365	Navigation lights	16-45 feet (4.9-13.7 m)	Various	5	>10 NM (11.5 miles or 18.5 km)	White, red and green lights
Supply Vessel (2)	36	Flood lights	16-40 feet (4.9 -12.2 m)	180°	2	>7 NM (8.1 miles or 13 km)	Halogen flood lights

Notes:

Data are for each type of light in use and assume a dark clear night.

- 11 The offshore pipeline would be lying on the ocean bottom and be buried nearshore, and
- 12 lighting would not be required unless repair or maintenance is necessary during night
- hours. In this event, a repair vessel would be temporarily present. Lighting used to aid
- in the repair, with running lights if at night, would not be used for extended periods of
- 15 time. Impacts on the visual environment from repair operations would be temporary.

Figure 4.4-18 presents a photographic simulation of the FSRU during nighttime conditions from a view near SR 1 above Leo Carrillo State Beach. Under nighttime conditions, the FSRU would barely be visible at a distance of 12.01 NM (13.83 miles or 22.25 km) offshore. The FSRU would appear as a light source in an otherwise dark sky. However, because of the distance from the coast, the FSRU, under dark sky conditions, would appear as a weak contrast to the natural landscape. The existing seascape includes platforms that are lit at night; these are closer to shore and have more lights than the FSRU would have. Implementation of the mitigation measure identified below would further ensure that this impact is reduced to a level below its significance criteria. Additionally, the presence of other light sources, such as lighting along SR 1 and other streets, residences, and the moonlight, would further diminish the weak contrast created by the lighting on the FSRU. Marine layer conditions would further diminish the view.



Figure 4.4-18 Simulated Nighttime View of the FSRU near the Horizon from a Point near Leo Carrillo State Beach

The Applicant has incorporated the following into the proposed Project:

AM BioMar-3a. Construction/Operation Lighting Control would apply to this impact (see Section 4.7, "Biological Resources – Marine").

With the implementation of this measure, lighting of the FSRU would be limited to that necessary for safety, and lighting of offshore pipelines would be required only for nighttime repairs during Project operations. Nighttime views of the FSRU would be minimized and this impact would be less than its significance criteria.

Impact AES-3: Alter Views for Recreational Boaters

The FSRU would change the visual character of the ocean view for recreational boaters (CEQA Class I; NEPA major adverse, long-term).

- 4 Recreational boating occurs in both nearshore and offshore areas. The change in character of the recreational experience for nearshore boaters would be very small.
- 6 Cabrillo Port could be seen from the nearshore areas as an almost indistinguishable 7 thickening of the horizon. The Project would not cause significant alteration of the
- 8 nearshore boating experience.

1

2

- 9 As noted in Section 4.15, "Recreation," most recreational boats berthed north of
- 10 Ormond Beach travel to Santa Cruz Island and Anacapa Island, located 12.2 and 17.4
- 11 NM (14 and 20 miles or 22.6 and 32.2 km offshore), respectively. Recreational boat
- 12 traffic traveling to and from Ventura Harbor, Santa Cruz Island, and Anacapa Island
- 13 would not likely pass the FSRU. The FSRU would be located approximately 17.4 NM
- 14 (20 miles or 32.2 km) east of the commonly used route to the Islands. In general,
- 15 recreational boaters traveling to these islands would not pass by Cabrillo Port on their
- 16 way to the Channel Islands.
- 17 While many recreational boaters head to the Channel Islands, boaters also travel
- 18 throughout the offshore area. Whale-watching boats also travel throughout the area
- and could have a closer vantage point than many other recreational boaters.
- 20 Although recreational boaters traveling in the area surrounding the FSRU site would
- often see large vessels traveling in the shipping lanes (more than 5,000 large commercial vessels annually travel through the Santa Barbara Channel using the traffic
- 23 separation scheme), the presence of the FSRU would change the visual character of
- 24 the seascape in the area for the life of the Project. All boaters would be required to
- 25 maintain a minimum distance of 1,640 feet (500 m), the "safety zone," from Cabrillo Port
- and would be advised of the 2 NM (2.3 miles or 3.7 km) Area to be Avoided, both of
- which would be shown on nautical charts. Boaters could still see the FSRU from some distance at sea, which would be stationary in contrast to the ships traveling in the
- 29 adjacent shipping lanes. In addition, an LNG carrier would be periodically moored next
- 30 to the FSRU while unloading at the port.
- to the FSRU while unloading at the port.
- 31 The change in character of the seascape could represent an adverse impact. Judging
- 32 the intensity of the impact with respect to recreational boaters is subjective. Some
- boaters would not find the FSRU to be a significant adverse aesthetic impact because
- 34 they are accustomed to the large ships traveling nearby in the shipping lanes.
- However, because recreational boaters would have the opportunity to view the FSRU much closer than observers on land, their views could be substantially degraded. In
- 37 accordance with the first aesthetic resources significance criterion, the Project would
- 38 substantially degrade the character of the area and an existing viewshed by introducing
- 39 an anomalous structure. Therefore, the Project would result in a significant long-term
- 40 aesthetic impact for recreational boaters.

- 1 Other than painting the FSRU in a color that blends with the surrounding and minimizing
- 2 light and glare, no additional mitigation measures are available to reduce this significant
- 3 impact. Because no mitigation is possible to reduce this impact to less than significant,
- 4 views of the FSRU for recreational boaters would remain a significant adverse aesthetic
- 5 impact.
- 6 Impact AES-4: Alter Offshore Views from an Eligible State Scenic Highway
- 7 The FSRU would be visible to travelers on an eligible State Scenic Highway 8 (CEQA Class III; NEPA minor adverse, long-term).
- 9 California's Scenic Highway Program was established in 1963 to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands 10 11 adjacent to highways. The State Scenic Highway System includes highways that have 12 been designated as scenic highways and those that are eligible for designation as 13 scenic highways. To become officially designated, local jurisdictions must adopt a 14 scenic corridor program and apply to the California Department of Transportation 15 (CalTrans) for approval. No highways within the State Scenic Highway System would be affected by the proposed Project; however, the FSRU would be visible along a 16 17 stretch of SR 1 that is eligible for designation as a Scenic Highway. Because the view 18 is intermittent, the FSRU is very remote, and it would be similar in appearance to 19 vessels that commonly transit the Project area, this impact would be adverse but less 20 than significant, and no mitigation measures are required.
- 21 Impact AES-5: Alter Ocean Views During Construction
- Night lighting during offshore construction could be visible from the shore and to residents living in the foothills and higher elevation areas in Malibu, thereby temporarily altering the nighttime viewshed (CEQA Class III; NEPA minor adverse, long-term).
 - Project activities may create a moderate degree of visual sensitivity for occupants of coastal residences and from view corridors along SR 1. Consequently, residents and travelers on SR1 could observe the installation of the FSRU and construction of the offshore and nearshore pipeline. During pipeline installation at the shore crossing, offshore construction vessels would be no closer than approximately 4,000 feet (1,219 m) from shore.
 - As required by the U.S. Coast Guard (USCG), vessels required for pipeline construction would display lights during nighttime hours for safety purposes. Shore crossing of Ormond Beach, as described in Section 2.6.1, "Shore Crossing via HDB," is estimated to take 54 days. Construction and installation of the two offshore pipelines is estimated to take 35 days. Therefore, pipelaying vessels and barges would be positioned offshore and would be visible for approximately 90 days, 24 hours per day, seven days per week. Nighttime construction of the pipeline offshore and nearshore would require pipelaying barges, tug/supply vessels, and cranes, all of which would be equipped with lights. Table 4.4-4 summarizes lighting requirements during offshore construction.

26

27 28

29

30

31

32

33

34 35

36

37 38

39

Table 4.4-4 Summary of Lighting Requirements During Offshore Construction and Shore Crossing

Facility/ Location	Source	Height above Sea Level	Shielded	# of lights	Visibility	Comments
Pipelaying barge (4)	Flood lights	6-45 feet (1.8-13.7 m)	No	10	>10 NM (11.5 miles or 18.5 km)	Halogen flood lights
Pipelaying barge (4)			Various	10	>5 NM (5.8 miles or 9.3 km)	Fluorescent white lights
Pipelaying barge (4)	Accommodations illumination	65-120 feet (19.8-36.6 m)	180 degrees	18	>5 NM (5.8 miles or 9.3 km)	Incandescent lights
Tug/supply vessels (2)	Navigation lights	8-25 feet (2.4-7.6 m)	180 degrees	5	>10 NM (11.5 miles or 18.5 km)	White, red, and green lights
Tug/supply vessels (2)	Flood lights	8-15 feet (2.4-4.6 m)	Various	2	>7 NM (8.1 miles or 13 km)	Halogen flood lights
100-ton cranes (2)	Flood lights	8-25 feet (2.4-7.6 m)	180 degrees	2	>10 NM (11.5 miles or 18.5 km)	Halogen flood lights
35-ton cranes (2)	Flood lights	8-15 feet (2.4-4.6 m)	180 degrees	2	>7 NM (8.1 miles or 13 km)	Halogen flood lights
Diesel-wielding units (10)	Vehicle mounted lights	6-8 feet (1.8-2.4 m)	180 degrees	10	>5 NM (5.8 miles or 9.3 km)	Fluorescent white lights

Notes: Data are for each type of light and assumes a dark clear night.

- 1 Work and navigational lighting onboard vessels used during offshore construction would
- 2 be visible much of the time, but this would be a temporary effect and therefore not a
- 3 significant impact.
- 4 Pipeline construction vessels are not commonly seen in the ocean landscape off
- 5 Ormond Beach. However, large vessels are not an unusual sight because large ships
- and tankers often pass through the marine landscape to either the Port of Hueneme or
- 7 the Port of Long Beach/Los Angeles. The construction vessels would be temporary;
- therefore, the lighting on the vessels would not be a permanent new source of light or glare. In addition, lighting would be shielded 180 degrees when possible.
- 10 The Applicant has incorporated the following into the proposed Project:
- 11 **AM BIOMAR-3a. Construction Lighting/Operation Control** applies here (see Section 4.7, "Biological Resources Marine").
- Implementation of the measure stated above would limit views of pipeline construction and reduce this impact during the construction period. The impact would cease following the installation of the pipelines.

- 1 Impact AES-6: Substantial Damage to Onshore Scenic Resources Along a State 2 Scenic Highway
- Construction of the onshore pipelines could alter the scenic qualities of a highway eligible for the State Scenic Highway System (CEQA Class III; NEPA minor adverse, long-term).
- The part of SR 1 that traverses the Project area is eligible for designation as a Scenic
- 7 Highway under the CalTrans State Scenic Highway Program (CalTrans 2004).
- 8 Although onshore construction activities on the Center Road Pipeline route would be
- 9 visible from City-designated visual corridors and routes, this impact would be minor and
- 10 temporary because the use of clearing and grading equipment is a common agricultural
- 11 practice in the Project area. Once pipeline construction has been completed, the buried
- 12 pipelines will not be visible within the visual corridors.
- 13 The City of Oxnard General Plan defines areas of visual significance, views, and
- 14 corridors within a planning area boundary that extend beyond the current city
- 15 boundaries. Within the current city boundaries, Hueneme Boulevard and part of Del
- 16 Norte Boulevard are identified as City Image Corridors/Scenic Highways because they
- 17 allow long-range panoramic views that should be maintained and enhanced. No
- 18 specific implementation measures are proposed to address scenic corridors/highways.
- 19 For the same reasons that the Project would not affect the eligibility for the State Scenic
- 20 Highway system, the proposed Project would not affect the City Image Corridors/Scenic
- 21 Highways.
- 22 Rows of eucalyptus and cypress trees planted by farmers to protect crops from wind
- 23 damage are recognized as visually important because they add a vertical element to the
- 24 otherwise flat Oxnard Plain. No eucalyptus and cypress tree windrows within the City of
- Oxnard would be removed along the route of the Center Road Pipeline on Hueneme
- Boulevard or Del Norte Boulevard. However, within the General Plan's 2020 Planning
- 27 Area Boundary outside of the city limits, windrows likely would be removed on Hailes
- Road east of Oxnard and orchard trees would be removed at the northern end of the
- 29 Center Road Pipeline in the vicinity of SR 118 (Los Angeles Avenue). As discussed in
- Section 4.8, "Terrestrial Biology", the trees in the windrows would be replaced one for one with species acceptable to the landowner and would, over time, replace the existing
- 32 tree rows; therefore, removal of the tree rows would be a long-term effect but a minor
- 33 impact that would not affect either a State-eligible Scenic Highway or visual corridors
- within the City of Oxnard (see also Section 4.8, "Biological Resources-Terrestrial").
- 35 Trees also would be removed in orchards along the northern end of the Center Road
- Pipeline. Because the pipeline must remain accessible for maintenance and repairs, these trees would not be replaced in the permanent ROW but would be maintained as
- 38 natural vegetation or row crops, which would alter the visual setting. However, it is
- 39 unlikely that the orchards would be visible from the part of SR 1 that is eligible for
- 40 Scenic Highway designation.

- 1 No blasting of rock is proposed. As discussed in Section 4.5.1.3, "Soil Conditions," soils
- 2 in the vicinity of the Center Road Pipeline and its alternatives consist of loamy sand and
- 3 sandy loam, and Section 4.11.1.2, "Geology," confirms that only surficial deposits of soil
- 4 are expected to be encountered during construction of the onshore pipelines; therefore,
- 5 no rock outcroppings within areas eligible for scenic highway designation would be
- 6 affected.
- 7 <u>Mitigation Measures for Impact AES-6: Substantial Damage to Onshore Scenic</u>
- 8 Resources
- 9 **MM GEO-1b. Backfilling, Compaction, and Grading** would apply to this impact (see Section 4.11, "Geologic Resources and Hazards").
- 11 As discussed in Section 4.9.1.3, "Literature Reviews and Surveys," no historic buildings
- would be affected by the onshore pipeline construction; therefore, there would be no
- 13 effect on historic buildings along roads eligible for State Scenic Highway designation.
- 14 Because the proposed Project would not permanently affect tree rows, rock
- outcroppings, or historic buildings within an eligible State Scenic Highway, and the
- 16 construction ROW would be restored to preexisting conditions, the proposed Project
- 17 would not substantially damage scenic resources within an eligible State Scenic
- 18 Highway. Therefore, the potential impacts are adverse, but do not rise above the
- 19 significance criteria.
- 20 Table 4.4-5 summarizes aesthetic impacts and mitigation measures.

Table 4.4-5 Summary of Aesthetic Impacts and Mitigation Measures

Impact	Mitigation Measure(s)
Impact AES-1: Alter Ocean Views from Onshore and Channel Islands Viewpoints The FSRU in an unobstructed viewshed could alter views from beach areas, residences near sea level, residences at higher elevations, and from hiking trails at higher elevations (CEQA Class III; NEPA minor adverse, long-term).	None.
Impact AES-2: Alter Nighttime Ocean Views Night lighting on the FSRU could be visible to residents, thereby altering night vistas (CEQA Class III; NEPA minor adverse, long-term).	AM BioMar-3a. Construction/Operation Lighting Control (see Section 4.7, Biological Resources – Marine").
Impact AES-3: Alter Views for Recreational Boaters The FSRU would change the visual character of the ocean view for recreational boaters (CEQA Class I; NEPA major adverse, long-term).	None.
Impact AES-4: Alter Offshore Views from an Eligible State Scenic Highway The FSRU would be visible to travelers on an eligible State Scenic Highway (CEQA Class III; NEPA minor adverse, long-term).	None.

Table 4.4-5 Summary of Aesthetic Impacts and Mitigation Measures

Table III C Carrinally C. 7. Common Carrinal	g
Impact	Mitigation Measure(s)
Impact AES-5: Alter Ocean Views During Construction Night lighting during offshore construction could be visible from the shore and to residents living in the foothills and higher elevation area in Malibu, thereby temporarily altering the nighttime viewshed (CEQA Class III; NEPA minor adverse, long-term).	AM BioMar-3a. Construction Lighting/Operation Control (see Section 4.7, Biological Resources – Marine").
Impact AES-6: Substantial Damage to Onshore Scenic Resources Along a State Scenic Highway Construction of the onshore pipelines could alter the scenic quality of a highway eligible for the State Scenic Highway System (CEQA Class III; NEPA minor adverse, long-term).	MM GEO-1b. Backfilling, Compaction, and Grading (see Section 4.11, "Geologic Resources and Hazards").

1 4.4.5 Alternatives

2 4.4.5.1 No Action Alternative

As explained in greater detail in Section 3.4.1, under the No Action Alternative, MARAD would deny the license for the Cabrillo Port Project, the Governor of California would disapprove the Project under the provisions of the DWPA, or the CSLC would deny the application for the proposed lease of State tide and submerged lands for a pipeline right-of-way. Any of these actions or disapproval by any other permitting agency could result in the Project not proceeding. The No Action Alternative means that the Project would not go forward and the FSRU, associated subsea pipelines, and onshore pipelines and related facilities would not be installed. Accordingly, none of the potential impacts on visual resources identified for the construction and operation of the proposed Project would occur.

Specifically, potential impacts that would not occur if the No Action Alternative is implemented include the following:

- Alteration of ocean views from beach areas, residences near sea level, residences at higher elevations, and from hiking trails at higher elevations;
- Alteration of night views for occupants of nearby residences and within view corridors as well as for recreational users due to night lighting on the FSRU during Project operations;
- Change in the visual character of the ocean view for recreational boaters;
- Alteration of scenic views from an eligible State Scenic Highway;
- Alteration of night views for occupants of coastal residences and from view corridors along SR 1 due to night lighting during offshore Project construction; and

24

3

4

5

6 7

8

9

11

12

13

14

15

16

17

18

19

20

21

22

1 2

3

5 6 7

4

8 9 10

11 12

13

14

15

16 17

18

21

19 20

22 23

24 25

26 27

28 29

30 31

32 33 34

35

36

37 38

39 40

41 42

March 2007

 Alteration of scenic quality of a highway eligible for the State Scenic Highway System during onshore Project construction.

Since the proposed Project is privately funded, it is unknown whether the Applicant would proceed with another energy project in California; however, should the No Action Alternative be selected, the energy needs identified in Section 1.2, "Project Purpose, Need and Objectives," would likely be addressed through other means, such as through other LNG or natural gas-related pipeline projects. Such proposed projects may result in potential impacts on visual resources similar in nature and magnitude to the proposed Project as well as impacts particular to the respective configurations and operations of each project; however, such impacts cannot be predicted with any certainty at this time.

4.4.5.2 Alternative DWP Location - Santa Barbara Channel/Mandalay Shore **Crossing/Gonzales Road Pipeline**

This alternative location would be 7.4 NM (8.5 miles or 13.7 km) off the coast of Rincon Beach. This alternative site would be 4.7 NM (5.4 miles or 8.7 km) closer to shore than the proposed Project and would therefore be more visible to sensitive receptors. For example, visibility greater than or equal to 5.2 NM (6 miles or 9.7 km) but less than 8.7 NM (10 miles or 16.1 km) occurs about 68 percent of the time at Point Mugu, which would make the FSRU visible nearly twice as much of the time. This alternative would have greater impacts on the visual environment because the FSRU would be closer to shore than the commercial vessel traffic lanes. It would appear larger and perhaps be more noticeable than the vessels transiting the shipping lanes and would therefore be more likely to degrade the existing viewshed than would the more remote proposed Project.

The effect of night lighting on board the FSRU as seen by residents or observers in Oxnard would be also greater than for the proposed Project route because it would be more visible more of the time due to the shorter distance offshore. It would not be visible from onshore points east of Point Dume, but could be visible from Carpinteria, Santa Barbara, and other northward points.

As with the Ormond Beach sand dunes with respect to the proposed Project, the coastal sand dunes at Mandalay State Beach Park are identified as a natural scenic resource for the city. The offshore pipeline construction and installation of the shore crossing would both require the use of lights on vessels during installation, but this temporary impact would cease after construction is completed. The same mitigation for nighttime lighting for both the FSRU and the offshore nighttime construction as the proposed Project would apply and would reduce this impact to less than significant.

This DWP location would likely be visible from portions of SR 1 from Santa Barbara Point in Santa Barbara to just north of the Santa Clara River where SR 1/U.S. 101 turns inland; therefore, the impact of this alternative would not significantly differ from the proposed Project in its visibility from a State Scenic Highway except that it would be closer to shore. Gonzales Road is identified as a City Image Corridor/Scenic Highway but, like the proposed Project, no rock outcroppings or historic buildings would be affected and the same mitigation, including properly grading the pipeline construction

- 1 ROW to its original contours and restoring and revegetating as identified for the
- 2 proposed Project, would reduce this potential impact to a level below its significance
- 3 criteria.

4 4.4.5.3 Alternative Onshore Pipeline Routes

5 Center Road Pipeline Alternative 1

- 6 This alternative would depart from the proposed route at Hueneme Boulevard and travel
- 7 north on Rice Avenue, turning west on Gonzales Road and traveling north on Rose
- 8 Avenue, and then east on Los Angeles Avenue, joining the Alternative 3 route near MP
- 9 13.0. The City of Oxnard General Plan has identified all of these roads as City Image
- 10 Corridors/Scenic Highways, except part of Rose Avenue north of U.S. 101. Like the
- proposed Project, this alternative would also cross U.S. 101, a Regional Image Corridor.
- 12 Figure 4.4-19 (KOP 14) shows Pleasant Valley Road, facing northeast toward SR 1.
- 13 Pleasant Valley Road is a busy, four- to six-lane road. The greenbelt area can be seen
- 14 in the background and would not be affected by the proposed Project. The City of
- 15 Oxnard 2020 General Plan Community Design Element designates Pleasant Valley
- 16 Road as a City Image Corridor/Scenic Highway (City of Oxnard 1990). Center Road
- 17 Alternative 1 would pass along Pleasant Valley Road and turn north on Rice Avenue.
- 18 The impact on image corridor/scenic highways would be less than significant.



Figure 4.4-19 View of Pleasant Valley Road, Oxnard (KOP 14)

- 1 Because this alternative continues in existing utility ROWs rather than deviating through
- 2 agricultural and natural areas at its northern terminus, it would be less visible than the
- proposed Project; because fewer trees would be removed from the construction ROW 3
- 4 and fewer orchard trees would be permanently removed from the pipeline ROW, the
- 5 impact would be less for this alternative than for the proposed Project.
- 6 Center Road Pipeline Alternative 1 would use more miles of City-designated City Image
- 7 Corridor/Scenic Highway routes (approximately 3 miles [4.8 km] more than the
- 8 proposed Project). This alternative would result in impacts similar to the proposed
- 9 Project. With implementation of the same onshore mitigation measures as identified for
- the proposed Project, the impacts for this alternative would be reduced to less than the 10
- 11 significance criteria.

12

Center Road Pipeline Alternative 2

- 13 Center Road Pipeline Alternative 2 would be similar to the proposed Project but would
- 14 use Pleasant Valley Road to travel east of the proposed Project and would continue
- 15 north on Wolff Road to join Alternative 3 at Central Avenue north of U.S. 101. Like the
- proposed Project, this alternative would also cross U.S. 101, Ventura Freeway, a 16
- 17 Regional Image Corridor. It would avoid the scenic Del Norte Boulevard, crossing
- 18 approximately 4 miles [6.4 km] of greenbelt area outside the Oxnard city limits instead.
- 19 This alternative would use city-designated City Image Corridor/Scenic Highway areas,
- 20 including Pleasant Valley Road, which, as noted above, is a busy thoroughfare;
- 21 however, except for the first 2.2 miles (3.6 km) of this route, the entire route is outside
- 22 the Oxnard city limits. The impact would not be significant and no mitigation measures
- 23 are proposed.
- 24 The area along Wolff Road is identified as having windrows with scenic values and this
- 25 alternative potentially would affect more windrows, depending on the actual location of
- 26 the pipeline within the ROW, as determined during final design. However, unlike the
- 27 proposed Project, this alternative would not require the removal of orchard trees at the
- northern end. 28

32

- 29 This alternative would result in impacts similar to the proposed Project.
- 30 implementation of the onshore mitigation measures identified for the proposed Project,
- 31 the impacts for this alternative would be reduced to less than the significance criteria.

Center Road Pipeline Alternative 3

- 33 Alternative 3 would be the same as the proposed Project except at the northern end
- 34 from the intersection of SR 118 (Los Angeles Avenue) and Santa Clara Avenue, where
- 35 it would continue along existing ROWs instead of passing through agricultural and
- 36 natural areas. Except for the greater number of orchard trees removed, the impacts of
- 37 this alternative would be similar to those of the proposed Project, and the same
- 38 mitigation would apply.

1 Line 225 Pipeline Loop Alternative

- 2 This alternative would have impacts similar to the proposed Project. With
- 3 implementation of the same onshore mitigation measures as identified for the proposed
- 4 Project, the aesthetic impacts for this alternative would be reduced to less than the
- 5 significance criteria.

6 4.4.5.4 Alternative Shore Crossing/Pipeline Route

7 Point Mugu Shore Crossing/Casper Road Pipeline

- 8 Impacts for this alternative would be identical to those for the proposed route; however.
- 9 there would be fewer visual receptors because it is located on a remote part of the naval
- 10 base. The only people that would view it would be military personnel. The same
- 11 mitigation would apply as for the proposed Project.

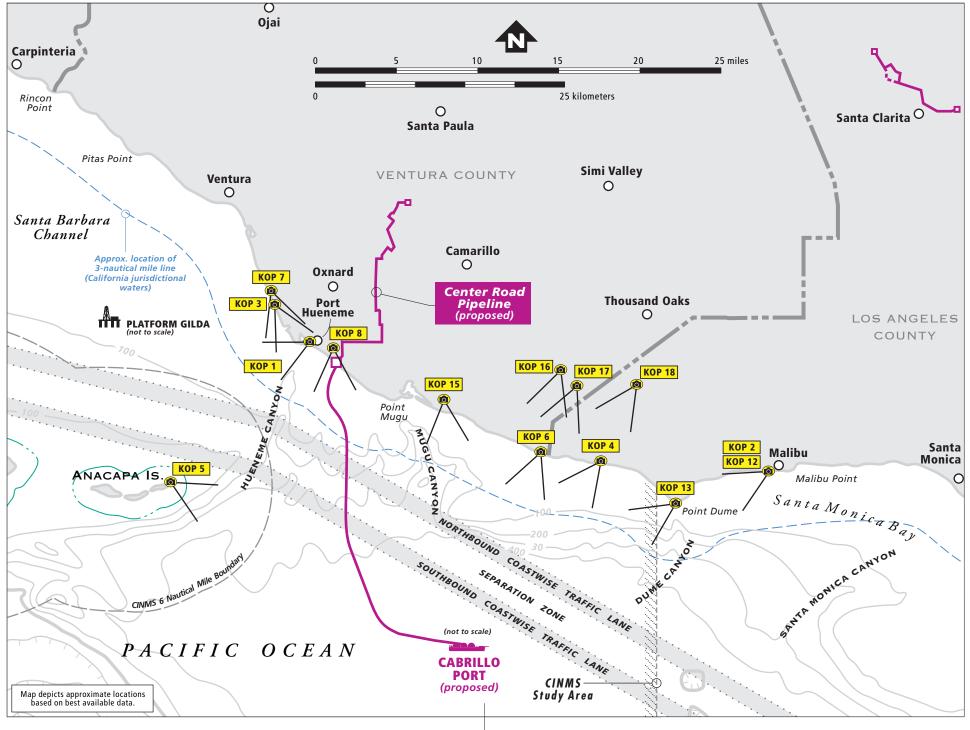
12 Arnold Road Shore Crossing/Arnold Road Pipeline

- 13 Arnold Road would be the most exposed to the public using Ormond Beach because
- 14 this road is used as an access road and pipeline construction would occur along this
- public road instead of within the fence line of an existing facility such as the generating
- 16 station or Point Mugu; however, these visual effects, although more apparent than for
- 17 the proposed Project, would be temporary. With this exception, impacts for this
- alternative would be identical to those for the proposed route and the same mitigation
- 19 would apply.

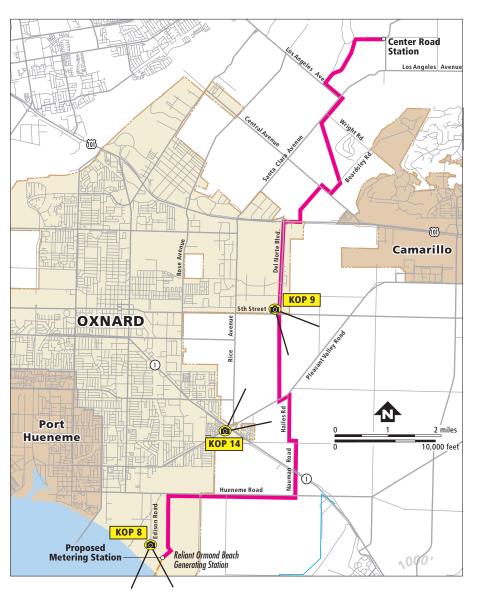
20 4.4.6 References

- 21 California Department of Transportation (CalTrans). 2004. Guideline for the Official
- 22 Designation of Scenic Highways A List of Eligible and Officially Designated Routes.
- 23 http://www.dot.ca.gov/hq/LandArch/scenic/scpr.htm.
- 24 City of Oxnard. 2004. General Plan.
- 25 City of Santa Clarita. 1991. General Plan.
- 26 National Park Service (U.S. Department of the Interior). 2006. Santa Monica
- 27 | Mountains National Park Statistics. Accessed November 3. http://www.nps.gov/
- 28 samo/parkmgmt/statistics.htm
- 29 Oxnard Convention and Visitors Bureau. 2004. http://www.oxnardtourism.com/
- 30 whatsnewwhales.html.
- 31 Channel Islands National Park. 2004. http://www.channel.islands.national-park.com/
- 32 sanb.htm.
- 33 Ventura County Planning Division. 1996. Ventura County General Plan, Area Plan for
- 34 the El Rio/Del Norte Area.

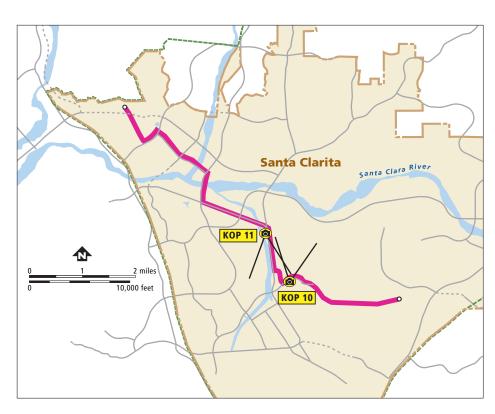
1	2000. Ventura County General Plan, Resources Appendix.
2	2001. Ventura County General Plan, Coastal Area Plan. November.
3	2004. Ventura County General Plan.



Locations of KOPs for the Cabrillo Port FSRU and Offshore Areas of Interest



Locations of KOPs for the Center Road Pipeline



Locations of KOPs for the Line 225 Pipeline Loop

